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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,580	07/23/2003	Daniel Kenneth Lunecki	CYGL-26,370	7734

25883 7590 03/07/2007  
HOWISON & ARNOTT, L.L.P  
P.O. BOX 741715  
DALLAS, TX 75374-1715

EXAMINER
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HUYNH, KIM T

ART UNIT	PAPER NUMBER
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2111

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/625,580

Applicant(s)

LUNECKI ET AL.

Examiner

Kim T. Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/13/07.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Bacon (US Patent 6,307,538)

As for claim 16, Bacon teaches a modularized serial data module for interfacing between a first serial data communication interface (see figure 3, microcontroller core 102, SIE 104), operating in accordance with a first serial data protocol from and to an external device for transmitting and receiving serial data that transmits/receives data and also provides power to the modularized serial data module (see figure 3, and column 5 lines 6-12), and a second serial data communication interface operating in accordance with an associated serial data protocol that transmits or receives data (see figure 3, isolator 92 and column 5 lines 1-5), comprising: a connector housing for providing a physical interface with the first serial data communication interface (see figure 3, connector housing, a data interface for providing a physical interface with the second serial data communication interface (see figure 3, isolator 92); a processor housing disposed adjacent said connector housing and interfacing therewith (see figure 3, microcontroller core 102; a single chip processor disposed within said processor

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housing, said processor operating with a native digital processor protocol different from said at least one of said first or second serial data protocols, and said processor also operable to be powered by the serial data communication interface through said connector housing (see figure 3, microcontroller 102 and column 5 lines 5-12), and said processor also operable to interface with the data portion of the first serial data communication interface through said connector housing (see figure 3, SIE 104 and column 5 lines 5-13), and to interface with the data portion of the second data communication interface through said data interface (see column 4 lines 55-67)., and wherein said single chip processor is operable to provide processing of information based upon data received from either the first serial data communication interface in the first serial data protocol through said connector housing or the second serial data communication in the second serial data protocol through said data interface, or processing information for transmission to either the serial data communication interface in the first serial data protocol through said connector housing or the second serial data communication interface in the second serial data protocol through said data interface (see figure 3 and column 5 lines 6-12).

As for claims 17-19, Bacon teaches wherein said data interface comprises an analog interface (see column 4 lines 30-33).

As for claims 20-22, Bacon teaches wherein said data interface comprises

a digital data interface (see column 5 lines 6-12).

As for claims 23, Bacon teaches wherein the first serial data protocol is a synchronous data protocol (see column 6 lines 29-30).

As for claims 24, Bacon teaches wherein the first serial data protocol is associated with a universal serial bus data protocol (see column 3 lines 47).

As for claim 25, Bacon teaches wherein processor utilizes a free running time base generated within said connector housing (see column 6 lines 22-31).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bacon (US Patent 6,307,538) in view of Ware et al. (US Patent 5,446,696) and further in view of Nolan et al. (US Patent, 5,841,996)

As for claim 1, Bacon teaches a modularized serial data module for interfacing with a serial data communication interface to an external device operating in accordance with a first serial data protocol that transmits/receives data and also provides power to the modularized serial data module (see figure 3, microcontroller core 102 and column 5 lines 6-12), comprising: a connector housing for providing a physical interface with the serial data communication interface (see figure 3, connector plugs 106, SIE 104)., a processor housing disposed adjacent said connector housing and interfacing therewith (see figure 3, microcontroller 102)., a single chip processor disposed within said processor housing and operable to be powered by the serial data communication interface through said connector housing and also operable to interface with the data portion of the serial data communication interface through said connector housing, said processor operating with a native digital processor protocol different than said first serial data protocol (see figure 3, microcontroller 102, power supply 184, ground 182, and column 5 lines 6-18)', and wherein said single chip processor is operable to provide processing of information based upon data received from the serial data communication interface with the first serial data protocol through said connector housing or processing information with the first serial data protocol for transmission to the serial data

communication interface through said connector housing (see figure 3 and column 5 lines 5-18).

Bacon does not explicitly teach oscillator disposed with the processor housing. However, Ware teaches an oscillator disposed within a processor (see figure 5, oscillator 565 disposed within the processor 560). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Ware into the teachings of Bacon because the oscillator will providing control of frequency for refresh signal thus power reduction can be reduced significantly (see abstract and column 3 lines 49-52).

Furthermore, the modified of Bacon discloses all the limitations as above except whether this oscillator disposed on a processor chip a free running oscillator that required no external reactive components for the operation thereof, which said oscillator provides an operating clock signal to said processor for operation thereof. However, Nolan discloses a microcontroller includes watchdog timer that is realized as a free running on-chip RC oscillator which does not require any external components. (col.5, lines 4-11) Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Nolan's teaching into the modified of Bacon's system so as to provide the capability for programming a microcontroller while in its end-use application. (col.1, lines 59-61)

As for claim 2, Bacon teaches a data interface between said processor in said processor housing and external to said processor housing for transmission of data from the processor exterior to the processor housing or receipt of data generated exterior to said data housing for processing by the said processor (see figure 3).

As for claims 3-5, Bacon teaches wherein said data interface comprises an analog interface (see column 4 lines 30-33).

As for claims 6-8, Bacon teaches wherein said data interface comprises a digital data interface (see column 5 lines 6-12).

As for claim 9, Bacon teaches a transducer disposed in said processing housing for interfacing between said processor and exterior to said processor housing for receipt of external information generated external to said processor housing or providing of information to the exterior of said processor housing, said transducer interfaced with said processor (see figure 3, transducer 80, 82, 84).

As for claim 10, Bacon teaches wherein said transducer is operable to sense exterior information for input to said processor for processing thereof and subsequent transmission to the serial data line through said connector



housing (see figure 3, transducer 80, 82, 84).

As for claim 11, Bacon teaches wherein said transducer is operable to generate information for output exterior of said processor housing (see figure 3).

As for claim 12, Bacon teaches wherein said transducer requires power and the power required thereby is provided through said connector housing and said processor housing (see figure 3 and column 5 lines 13-18).

As for claim 13, Bacon teaches wherein the first serial data protocol is a synchronous data protocol (see column 6 lines 29-30).

As for claim 14, Bacon teaches wherein the first serial data protocol is associated with a universal serial bus data protocol (see column 3 lines 47).

### ***Response to Amendment***

5. Applicant's amendment filed on 12/13/06 have been fully considered but does not place the application in condition for allowance.

a. In response to applicant argues that Bacon fails to teach a processor operating with a native digital processor protocol different than said first serial data protocol.

Examiner respectfully disagrees. It is clear that any processor user is a digital processor protocol and the processor protocol is different from serial protocol.

b. In response to applicant's argument that Nolan does not disclose a free run oscillator. The watchdog timer in Nolan is not utilized for the operation of the processor but, rather, it is utilized as a separate low frequency timer for other operations. Examiner respectfully disagrees. As Nolan notes at (col.5, lines 4-11) specifically discloses a watchdog timer is realized as a free running on oscillator. This is equivalent to applicant's claimed as a free run oscillator. Thus, the prior art teaches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

### ***Conclusion***

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

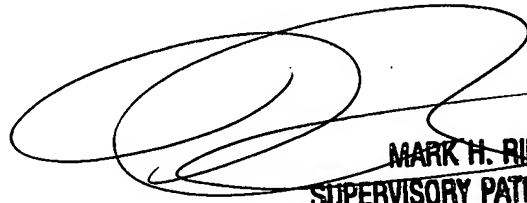
**7.** *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9:00AM- 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at (571)272-3632 or via e-mail addressed to [mark.rinehart@uspto.gov].*

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*The fax phone numbers for the organization where this application or proceeding is assigned are (571)273-8300 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.*

Kim Huynh

March 4, 2007

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

**MARK H. RINEHART  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100**